

# UTILITY PATENT APPLICATION TRANSMITTAL (Large Entity)

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.  
13065.36.1.1

Total Pages in this Submission

## TO THE ASSISTANT COMMISSIONER FOR PATENTS

Box Patent Application  
Washington, D.C. 20231

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**METHOD AND SOFTWARE ARTICLE FOR SELECTING ELECTRONIC PAYMENT OF VENDORS IN AN AUTOMATED PAYMENT ENVIRONMENT**

and invented by:

Lynn Y. Shimada

If a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Which is a:

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☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Enclosed are:

### Application Elements

1. ☐ Filing fee as calculated and transmitted as described below
2. ☒ Specification having twenty-one (21) pages and including the following:
  - a. ☒ Descriptive Title of the Invention
  - b. ☒ Cross References to Related Applications (if applicable)
  - c. ☐ Statement Regarding Federally-sponsored Research/Development (if applicable)
  - d. ☐ Reference to Microfiche Appendix (if applicable)
  - e. ☒ Background of the Invention
  - f. ☒ Brief Summary of the Invention
  - g. ☒ Brief Description of the Drawings (if drawings filed)
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure

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## Application Elements (Continued)

3. ☒ Drawing(s) (when necessary as prescribed by 35 USC 113)
- a. ☒ Formal                      Number of Sheets four (4)
- b. ☐ Informal                      Number of Sheets \_\_\_\_\_
4. ☐ Oath or Declaration
- a. ☐ Newly executed (original or copy)                      ☐ Unexecuted
- b. ☐ Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional application only)
- c. ☐ With Power of Attorney                      ☐ Without Power of Attorney
- d. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application,  
see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (usable if Box 4b is checked)  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under  
Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby  
incorporated by reference therein.
6. ☐ Computer Program in Microfiche (Appendix)
7. ☐ Nucleotide and/or Amino Acid Sequence Submission (if applicable, all must be included)
- a. ☐ Paper Copy
- b. ☐ Computer Readable Copy (identical to computer copy)
- c. ☐ Statement Verifying Identical Paper and Computer Readable Copy

## Accompanying Application Parts

8. ☐ Assignment Papers (cover sheet & document(s))
9. ☐ 37 CFR 3.73(B) Statement (when there is an assignee)
10. ☐ English Translation Document (if applicable)
11. ☐ Information Disclosure Statement/PTO-1449                      ☐ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Acknowledgment postcard
14. ☒ Certificate of Mailing
- ☐ First Class    ☒ Express Mail (Specify Label No.): EL322731835US

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## Accompanying Application Parts (Continued)

15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)

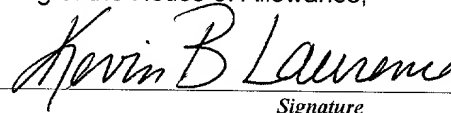
16. ☐ Additional Enclosures (please identify below):

## Fee Calculation and Transmittal

### CLAIMS AS FILED

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	7	- 20 =	0	x \$18.00	\$0.00
Indep. Claims	2	- 3 =	0	x \$78.00	\$0.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$760.00
OTHER FEE (specify purpose)					\$0.00
TOTAL FILING FEE					\$760.00

- ☐ A check in the amount of \_\_\_\_\_ to cover the filing fee is enclosed.
- ☐ The Commissioner is hereby authorized to charge and credit Deposit Account No. \_\_\_\_\_ as described below. A duplicate copy of this sheet is enclosed.
- ☐ Charge the amount of \_\_\_\_\_ as filing fee.
  - ☐ Credit any overpayment.
  - ☐ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
  - ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

  
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cc:

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PATENT APPLICATION  
Docket No. 13065.36.1.1

**UNITED STATES PATENT APPLICATION**

of

**Lynn Y. Shimada**

for

**METHODS AND SOFTWARE ARTICLE FOR SELECTING ELECTRONIC  
PAYMENT OF VENDORS IN AN AUTOMATED PAYMENT ENVIRONMENT**

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1 database specifying accounts payable specifics, accounting applications have typically not  
2 taken the next step of assisting a user in specifying and implementing accounts payable  
3 directives.

4 Thus, what is needed is a method and application for compatibly interacting with  
5 accounting applications to take the data from the accounts payable database thereby  
6 facilitating the payment exchange between a user and a vendor. Furthermore, it is also  
7 desirous to be able to provide payment to a vendor in an electronic, as opposed to a physical  
8 check draft.

### 9 10 **OBJECTS AND SUMMARY OF THE INVENTION**

11 It is, therefore, an object of the present invention to provide a method for  
12 determining which of a plurality of payment methods is to be employed for a particular  
13 vendor that is to be paid.

14 It is another object of the present invention to provide software that facilitates the  
15 improved method of determining a type of payment to be employed for a specific vendor by  
16 compatibly interacting with already established accounting applications.

17 It is a further object of the present invention to provide a method and application for  
18 determining which of a plurality of payment methods including traditional check drafting and  
19 electronic payment methods.

20 In accordance with the invention as embodied and broadly described herein, the  
21 foregoing and other objects are achieved by providing computer software and methods for  
22 determining which of a plurality of payment methods is to be employed for at least one  
23 vendor to be paid. It is a feature of the present invention to provide methods in an  
24 application to enable a user to employ a variety of payment systems including an electronic  
25 payment process, regardless of a particular accounting system employed. In the present  
26 invention, accounts payable output data stored in an accounts payable database generated by

an accounting application may be sent directly to the method and application of the present invention for selection of either electronic payment or payment through traditional check drafting processes. In addition, the present invention also enables a user to electronically send "checks" to vendors who cannot receive electronic transfers but may receive payment by employing a third-party such as a service center which generates a typical check draft. Additionally, it is an object of the present invention to provide a unique vendor name or identifier matching algorithm that retrieves a preferred payment method identifier corresponding to the vendor's database identifier or when the vendor identifier is not exactly matched within the accounts payable database, the present invention phonetically matches the specified vendor identifier with an entry in the vendor database. Additionally, the present invention enables a user to select specific vendors to receive payments and to establish or setup those vendors immediately.

The method and system of the present invention provides a user with the ability to pay vendors electronically, regardless of whether the vendors have the technology to receive electronic payments. In a particular embodiment of the present invention, accounts payable checks or drafts may be sent electronically. For example, information that usually be placed on a check and its stub may be sent to a processing center by the application of the present invention through a transceiver such as a modem. Once the processing center receives the check batch, either an electronic bank transfer is made or an actual check may be printed and sent to the designated vendor. The user receives from the processing center a regular confirmation of the completed transactions. In such an embodiment, a vendor does not need to be in possession of any special equipment to receive the payment. One of the primary benefits of the present invention is its ability to capture or utilize data placed within an accounts payable database that is generated by traditional accounting software.

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These and other objects and features of the present invention will become more fully apparent from the following description and appended claims, or may be learned by the practice of the invention as set forth herein after.



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## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention provides a method and a system whereby a user may enter the domain of electronic payment regardless of the accounting system employed by the user. That is to say, output from an accounting application may be sent directly to the present invention for electronic payment or alternatively for payment through the use of a generated paper check. In addition, the present invention enables a user to send electronic checks to a vendor who cannot receive them currently through the use of a third party such as a service center which ultimately generates and sends a paper check to the vendor. Furthermore, through the present invention's vendor name matching algorithm, the user may choose vendors at print-time to receive payments, and set those vendors up on the system immediately.

The present invention enables a user to have the ability to pay vendors electronically, regardless of whether or not they have the technology to receive electronic payment. Such an implementation enables the user to save both time and money and provides additional flexibility and control over the management of funds. Additionally, a user typically perceives a reduction in cost through not having to internally process printed checks but retaining the flexibility in paying through either electronic methods or through the use of cutting a paper check.

The present invention may be employed as an extension to an existing check printing application by extending the payment capability to include electronic payment. Information that is traditionally placed on the check stub may be electronically sent to a processing center by the present invention via modem. It should be pointed out that prior to invoking the use of a processing center, an account number must be established with the processing center for cooperatively issuing electronic payments. Once the a processing center receives a request for a check batch, either an electronic bank transfer is made or an actual check is printed and sent to the specified vendor. An acknowledgement is thereafter returned to the user



Electronic payment process center 24 receives the electronic payment transmissions and processes the payments. A typical electronic payment process center 24 includes such entities as Checkfree, EDS, Visa Interactive as well as other electronic payment processing

capable centers. Electronic payment process center 24 reads the electronic payment file and determines whether a vendor (i.e. recipient of payments) is capable of accepting electronic payments. If a particular vendor is not electronic-capable, a printed check 28 is generated by printer 26 and mailed to the vendor by electronic payment process center 24 as opposed to being mailed by user 10.

If the vendor is electronic-capable, an electronic transfer process 30 creates an entry in a ACH file 31 for posting to the vendor's account through a network such as a financial institution 32. Included with the ACH payment entry passed to financial institution 32 is additional remittance information (e.g. invoice number and data) supporting the particular payment. Electronic payments are created in a standard ACH format that is specified by the banking industry. Following the creation of an entry in the ACH file 31, the file is forwarded on to the ACH network (e.g. financial institution 32 and a bank network 34) for processing.

Financial institutions 32 are part of an established network capable of processing ACH items. If an institution is financial EDI (Electronic Data Interchange) capable, the remittance data will be passed along with the payment data. Otherwise, only the payment information is passed from institution to institution for posting to the appropriate accounts. Bank network 34 is an established vehicle for deposits and withdrawals between financial institutions and their customers and handles the transactions relating to the ACH items. ACH file 31 is transferred to an appropriate financial institution for processing. The payment is routed through bank network 34 and is deposited in a vendor bank account 36.

Figure 2 is a flow diagram depicting the various modules involved in the electronic payment process, in accordance with a preferred embodiment of the present invention. In flow chart 40, a determination is made as to whether a payment is to be routed electronically to a processing center or printed into a paper check. As described in Figure 1, accounting software generates accounts payable check print data 42 for processing by the present invention. If data 42 is not in a consistent format, preprocessing may be performed on

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1 In the present invention, vendor matching is accomplished by comparing the vendor  
2 number/ID (for example, PR421 in the above example) or vendor name (for example, Power  
3 Rents in the above example) and the print data to the vendor records in send check vendor  
4 data base 54. If a vendor number/ID is present in the print data, an exact match is required.  
5 If a vendor selection screen (Figure 4) is displayed, the user has the ability to make changes  
6 for specific payments for that run. After all changes and modifications have been made, the  
7 user continues processing. If a vendor match was discovered, the payment is passed into the  
8 electronic DLL 56 and a payment record is created in the electronic DLL data base 58. DLL  
9 data base 58 may maintain a different format for each of the different processing centers  
10 while the data bases may minimally contain items such as vendor name, vendor address,  
11 check amount, check number, check date, remittance (invoice) information and account  
12 number.

13 If no match is produced, the payment is deemed a paper check and is printed on a  
14 printer 48. In an alternate DOS environment, the create check print engine outputs PCL  
15 (Printer Control Language) data. This is the language used by Hewlett Packard's laser jet  
16 printers and many other HP emulated printers. In a windows environment, the output is  
17 directed to the windows printing system and the output is controlled by windows.

18 When a check run is complete, an electronic payments file 60 includes all  
19 transactions that are to be paid electronically. Electronic payments file 60 is transmitted via  
20 established communications to a processing center 24. Information in the electronic payment  
21 records include vendor name and address, vendor ID, check number, check amount, check  
22 date, account number, invoices numbers, invoice descriptions, invoice dates and invoice  
23 amounts.

24 Processing center 24 receives electronic payments file 60 and processes the  
25 payments for all of the center's customers. Processing center 24 attempts to set up each  
26 vendor as an electronic capable vendor as each new vendor is transmitted to the center. Once

Figure 3 is a detailed flow chart of a payment process through the payment system 70, in accordance with a preferred embodiment of the present invention. A user's check print data 42, as described in Figure 2, is generated from commercial accounting software 12 (Figure 1) and is generally represented in an ASCII format. When data 42 is not in a format compatible with the desired structure of the present invention, a preprocess 74 conditions the data into a desirable format usable by the present invention. Such preprocessing massages the data into a consistent format recognizable by the print engine of the present invention. A recognizable sample input format is depicted below.



**Sample input format:**

```

003                                00000044                1
0 080294 4194980                2.32  .00  2.32
3                                JOHN HENRY                00002
1                                2981 WEST IBM PLACE
1                                SUITE 2300
1                                BUILDING A                09/26/94
1                                SALT LAKE CITY, UT 84102-1045
2                                2.32
018 TOTAL-                      2.32                2.32
024 08 02 94 4294980            2.32  .00  2.32
1 TOTAL                          2.32                2.32
041                                00000044  00002  1
047                                00002
051                                09/26/94
3                                *****2 AND 32/100 US DOLLARS *****2.32*
2 JOHN HENRY
1 2981 WEST IBM PLACE
1 SUITE 2300
1 BUILDING 1
1 SALT LAKE CITY, UT 84102-1045

```

**Is converted to:**

```

080294 4194980                2.32  .00  2.32  00000044  00002  1
                                JOHN HENRY                00002
                                2981 WEST IBM PLACE
                                SUITE 2300
                                BUILDING A                09/26/94
                                SALT LAKE CITY, UT 84102-1045
                                2.32
TOTAL-                          2.32                2.32
08 02 94 4194980            2.32  .00                2.32
                                0000044  00002  1
                                00002
                                09/26/94
                                *****2 AND 32/100 US DOLLARS *****2.32*
JOHN HENRY
2981 WEST IBM PLACE
SUITE 2300
BUILDING A
SALT LAKE CITY, UT 84102-1045

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The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes which come within the meaning and range of equivalency of the claims are to be embraced within their scope.

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1. In an electronic payment system, a method for determining which of a plurality of payment methods is to be employed for at least one vendor to be paid, said method comprising the steps of:
  - a) receiving from a user at least one vendor identifier for each of said at least one vendor;
  - b) consulting a vendor database for a vendor database identifier corresponding to said vendor identifier;
  - c) when said vendor database includes said vendor identifier, retrieving a preferred payment method identifier corresponding to said vendor database identifier as stored in said vendor database;
  - d) when said vendor database does not include a match of said vendor identifier, from said vendor identifier phonetically matching to said vendor database identifier as stored in said vendor database and retrieving said preferred payment method identifier; and
  - e) presenting to said user said vendor database identifier in a list corresponding to said preferred payment method identifier.
2. In an electronic payment system, the method for determining which of a plurality of payment methods to be employed for at least one vendor to be paid, as recited in claim 1, wherein said receiving from a user at least one vendor identifier for each of said at least one vendor step, comprises the step of receiving said at least one vendor identifier for each of said at least one vendor from an accounts payable database created and maintained by an accounting software application.

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3. In an electronic payment system, the method for determining which of a plurality of payment methods to be employed for at least one vendor to be paid, as recited in claim 1, further comprising the step of defining said plurality of payment methods to include traditional check drafting and electronic payment methods.
4. In an electronic payment system, the method for determining which of a plurality of payment methods to be employed for at least one vendor to be paid, as recited in claim 1, said presenting to said user said vendor database identifier in a list corresponding to said preferred payment method identifier step further comprises the step of when one of said at least one vendor to be paid is proposed for payment using one of said plurality of payment methods, reassigning said one of said at least one vendor to another of said plurality of payment methods.



[illegible]

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### ABSTRACT OF THE INVENTION

An electronic payment system and method for determining which of a plurality of payment methods is to be employed for each vendor specified in the output of a commercial accounting software application. The method and system receive from a user a vendor identifier of a vendor the user determines to pay electronically and stores the vendor list in a electronic payment-capable vendor database. The system retrieves from the accounting software application payment information specifying specific vendors to be paid. The system consults with the electronic payment-capable vendor database to determine if a specific vendor listed for payment is capable of receiving electronic payment. When such a vendor is listed, the system compatibility interfaces with an electronic payment process center for the routing of electronic payment through a financial institution and banking network. Additionally, the present invention enables a user to make an electronic payment to a vendor that is not capable of receiving an electronic payment by employing an electronic payment process center to generate a printed check at its own site for dispatch to the vendor without requiring the user to itself generate a printed check.

G:\DATA\PAT\13065361.PAT



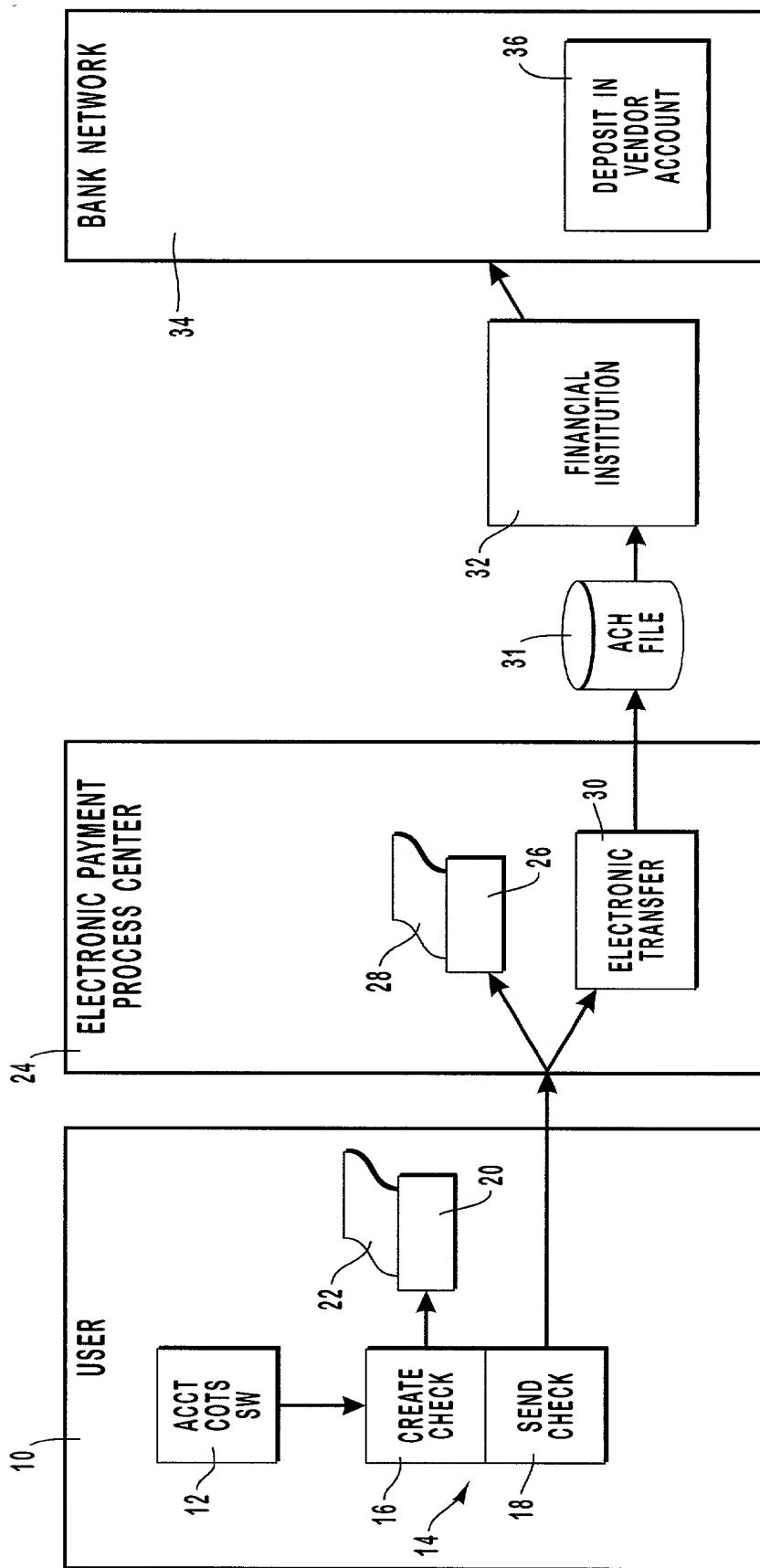


FIG. 1

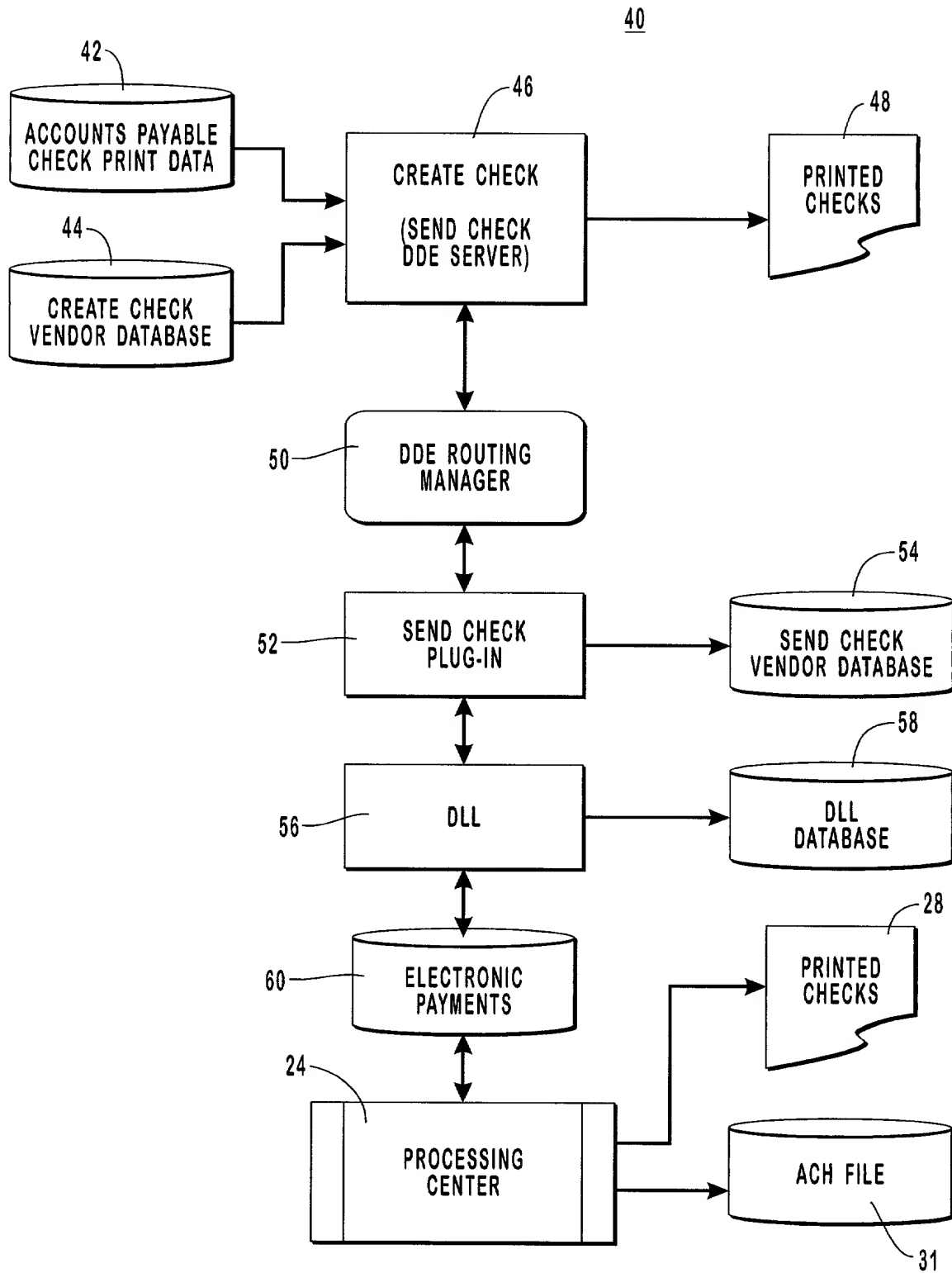


FIG. 2

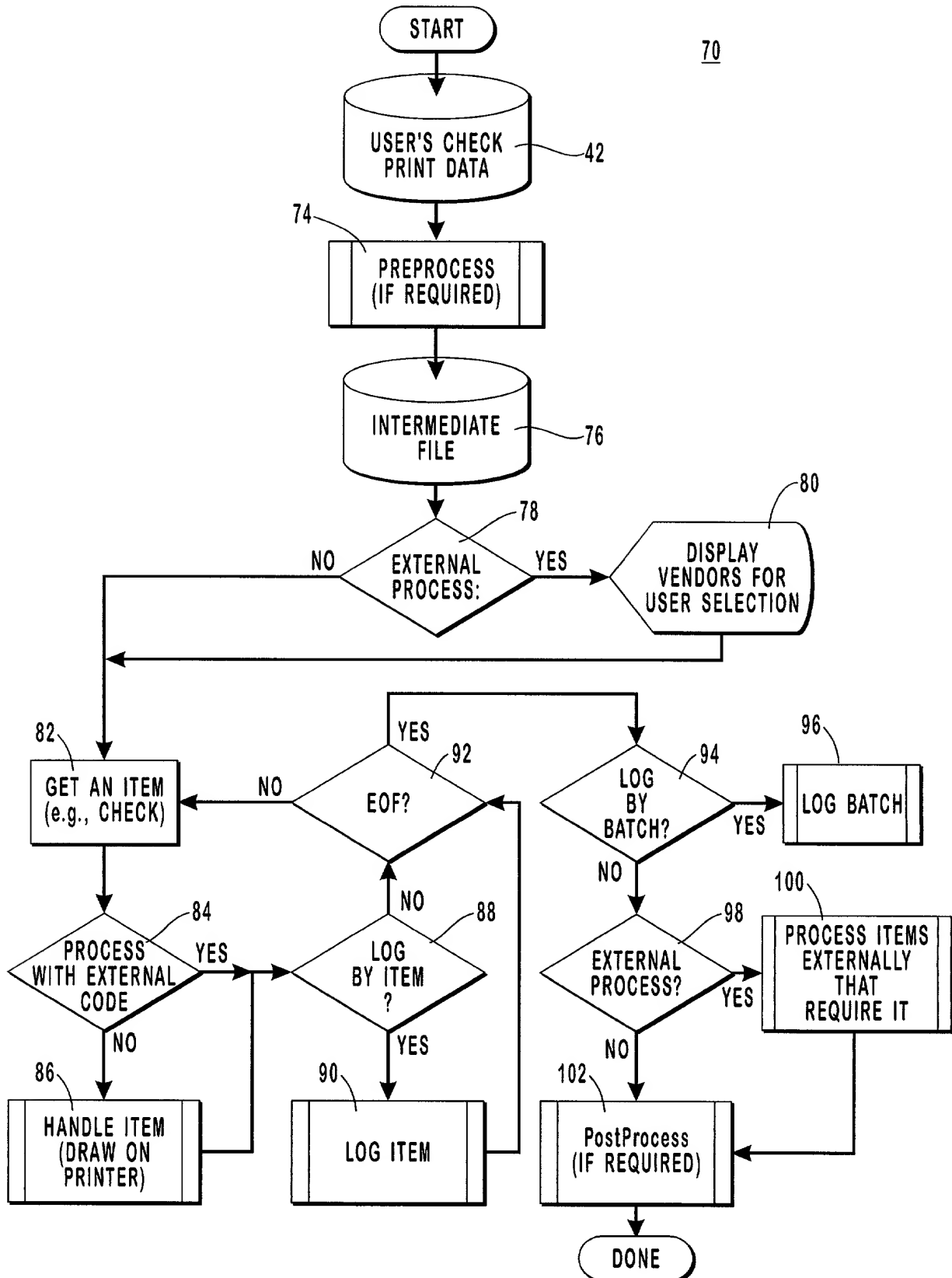
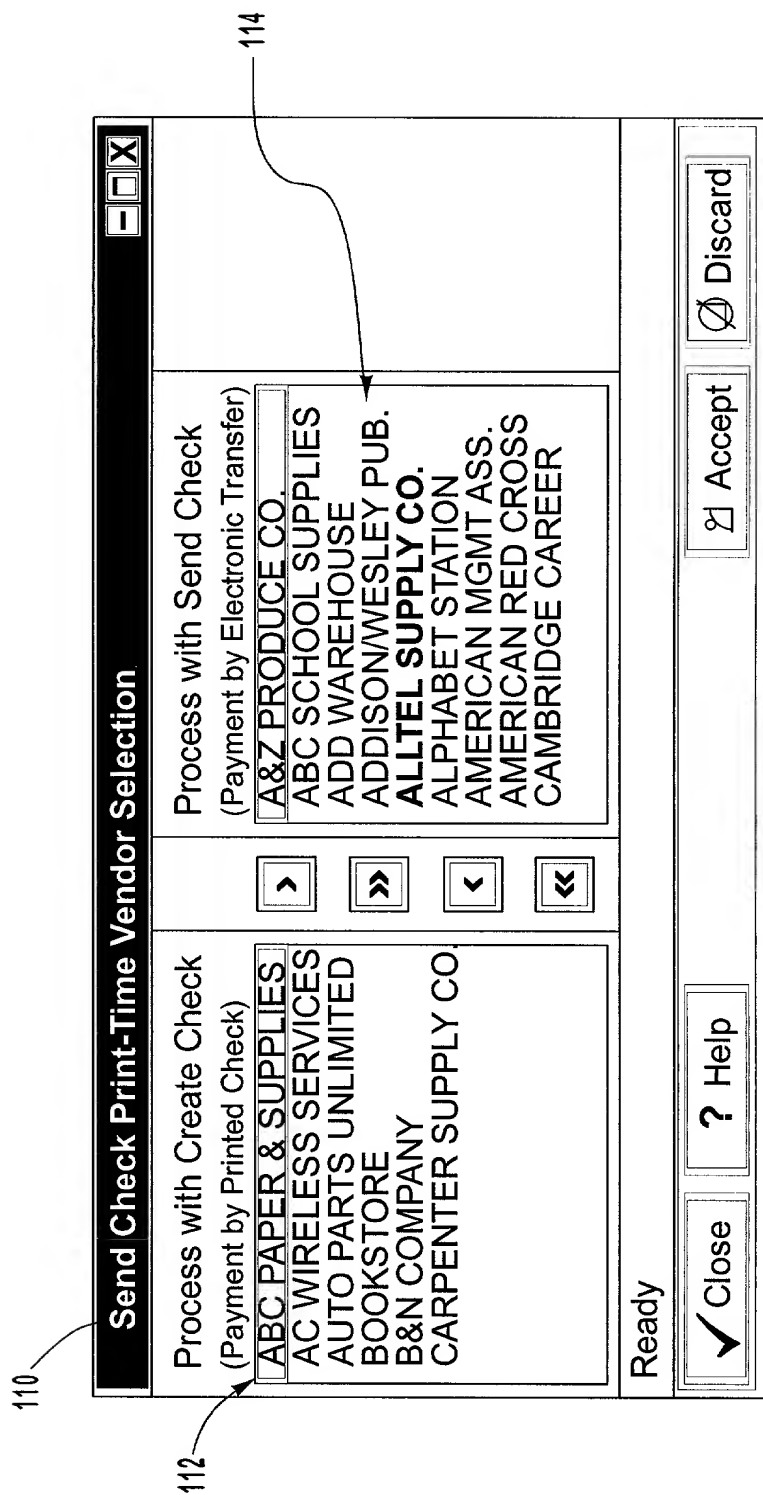


FIG. 3



**FIG. 4**